REMARKS

After entry of the claims above, claims 1-5, 7-14, 16-21, and 23-34 will be pending, with claims 6, 15, and 22 having been canceled without prejudice to their future prosecution in this or a related application. The amendments to claims 1-5, 7-14, 16-21, and 23-28 and the addition of new claims 29-34 add no new matter and all fully supported by the specification as originally filed. It should be noted that the amendments to claims 1-5, 7-14, 16-21, and 23-28 are not being made for reasons of patentability, but instead reflect Applicants' desire to further prosecution using preferred terminology to clearly and distinctly pursue claims directed to certain commercially significant, preferred embodiments of their invention. Similarly, new claims 29-34 represent preferred embodiments of the invention defined by claims 1, 10, and 17. Because the claims represent a subset of Applicants' larger invention, they expressly reserve the right to pursue subject matter no longer or not yet claimed in the captioned application in this or a related application.

Briefly, the application contains three independent claims, numbered 1, 10, and 17. Each of these claims concerns electroporation devices, i.e., devices useful for introducing therapeutic agents into cells (see, e.g., specification paragraph 2), preferably cells in vessels (e.g., blood vessels; see claims 3, 12, and 19). According to claims 1 and 17, such devices include a catheter having at least one balloon portion, the difference being that in the device of claim 1, such balloon portion may be positioned at any suitable location along the catheter, whereas in claim 17, the balloon portion is positioned other than at the catheter's distal end. Devices according to claim 10 employ catheters having at least two balloon portions. In other respects, the devices of the independent claims are comparable, in that each includes at least first and second electrodes spaced a particular way in relation to one another. Specifically and significantly, the first and second electrodes are spaced along the catheter such that, when a suitable voltage is applied between them, an electric field is generated that has sufficient strength to electroporate cells in the vessel into which the catheter is inserted.

New dependent claims 29-34 define certain preferred parameters for generating an electric field suitable for electroporation. In particular, claims 29, 31, and 33 refer to devices wherein the generated electric field strength is about 100 V/cm to about 5 kV/cm, while claims

30, 32, and 34 address a preferred voltage range of about 10 volts to about 200 volts. Support for these claims is found at specification paragraphs 0059 and 0062, respectively.

The amendments to claims 2-5, 7-9, 11-14, 16, 18-21, and 23-28 merely reflect Applicants' desire to use currently preferred terminology to claim their invention.

Applicants respectfully request reconsideration of the now-claimed invention in view of the following remarks regarding the 35 U.S.C. § 103 rejection advanced in the Final Office Action in view of U.S. patent no. 5,505,700 to Leone, et al. Before doing so, however, Applicants note that the cancellation of claims 6, 15, and 22 without prejudice moots the § 103 rejection premised on a combination of the '700 patent and U.S. patent no. 5,634,899 to Shapland, et al., which rejection was maintained in the Final Office Action.

Turning to the aforementioned § 103 rejection based solely on the '700 patent, while not acquiescing to the earlier rejection, Applicants respectfully submit that that it should not be applied to the now-pending claims. The reasons for this are straightforward. Specifically, to establish a *prima facie* case of obviousness in view of a single reference, the cited reference must teach or suggest all of the claim limitations. As to any differences between the claimed invention and the cited reference, the PTO must explain why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modifications, and that there would have been a reasonable expectation of success. To date, no such showing has been made.

To begin with, the device disclosed in the '700 patent is one for performing electro-osmotic infusion of a treatment fluid by iontophoresis or iontohydrokinesis. See the specification of the '700 patent in general. Numerous specific examples can also be found, for example, in the '700 patent's abstract; lines 6-15 of column 1; lines 40-53 and lines 63-67 of column 2; column 4, line 49, through column 5, line 7; lines 20-50 of column 5; lines 46-65 of column 6; and column 7, lines 10-22 of the '700 patent.

Also, the '700 patent defines iontophoresis as technology that "uses and electrical potential or current across a semi-permeable barrier to drive ionic medicaments toward the target treatment site." Id., column 1, lines 64-66. The '700 patent then goes on to define that iontophoresis can also include "the concept of dragging non-ionic medicaments across the semi-permeable barrier by incorporating the same within an ionic solution or carrier." Id., column 1, line 65, through column 2, line 2. When water is the carrier, the process is known as

"iontohydrokinesis." Id., column 2, lines 2-5. The only mention of "electroporation" made in the '700 patent occurs at column 7, lines 41-44, which provides that the disclosed device can:

> "also be used to effect drug release by electroporation, which is the electrical breakdown of cells which contain substances such as hemolytic compounds, genes, and the like." Id. (emphasis added)

As this passage makes clear, the process described as "electroporation" in the '700 patent is an entirely different process than electroporation as described in the instant application. Significantly, Applicants' specification (see, e.g., paragraphs 002-4) describes electroporation as a process that does not appreciably harm healthy cells. Moreover, because electroporation as described by Applicants creates pores in cells without permanently damaging them, the process allows any desired therapeutic agent(s) to be taken up and retained by cells that have been electroporated, thereby allowing for sustained delivery of the desired therapeutic agent(s). See, e.g., specification paragraphs 0022-25.

Delivery of desired therapeutic agent(s) into the cytoplasm of cells, as enabled by Applicants' claimed devices, stands in marked contrast to drug movement mediated by iontophoresis/iontohydrokinesis. Similarly, facilitating entry of desired therapeutic agents delivered via Applicants' claimed invention into cells that remain healthy and viable post-electroporation is entirely different from breaking them down to release substances already in the cells. This critical distinction cannot simply be overlooked because the '700 patent uses the word "electroporation" – a proper analysis requires asking what the cited reference actually discloses. When one asks this question with reference to the '700 patent, the process it discloses as "electroporation" – releasing agents already inside cells by electrically breaking them down – markedly differs from the process provided for by Applicants' invention.

This difference becomes even more meaningful when one accounts for the principle that a patent applicant can act as his own lexicographer, as occurred in the '700 patent with respect to various terms, including "electroporation". To ignore the meaning of "electroporation" provided in the '700 patent and to instead apply the meaning taught by Applicants' in their own specification epitomizes impermissible "picking and choosing" from cited art, as opposed to considering what the reference does, in fact, disclose to those or ordinary skill in the art.

In closing, Applicants have amended claims 1, 10, and 17 to clarify that the first and second electrodes are spaced in such a way as to impart electroporation capability and thereby facilitate the administration of drugs delivered, for example, by a catheter after its insertion into a vessel of a patient. By spacing the electrodes an appropriate distance, it is now possible to generate electric fields sufficient to transiently open pores in cells in a non-damaging manner so as to allow entry of desired therapeutic agents. Applicants respectfully submit that such devices are both novel and non-obvious, and that the instant claims are allowable. Applicants therefore earnestly solicit a first action notice of allowable subject matter. Of course, if any issues remain that can be resolved without formal action, Applicants encourage the Examiner to telephone the undersigned at 858.350.9690 so that the same may be promptly resolved.

Respectfully submitted,

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